METADATA: Mixed Mode Survey Responses File

Dataset: mixed_mode_responses.csv

OVERVIEW

- **Purpose**: Track and analyze multi-mode survey data collection

- **Design**: Sequential mixed-mode protocol (Web-first approach)

- **Coverage**: 2,000 sampled households

- **Implementation**: Adaptive design with mode switching

- **Period**: January - July 2024

MIXED-MODE DESIGN SPECIFICATIONS

- **Primary Mode**: Web (self-administered)

- **Secondary Mode**: Telephone (interviewer-administered)

- **Tertiary Mode**: Face-to-face (interviewer-administered)

- **Protocol**: 2 weeks web, 2 weeks phone, then F2F

- **Mode Assignment**: Based on contact information availability

VARIABLE DEFINITIONS

IDENTIFICATION

- **response_id** [String]: Unique response identifier (MM#####)

- **household_id** [String]: Link to household survey (HH#####)

MODE SEQUENCE

- **mode_sequence** [String]: Complete mode pathway
  - Web only: Completed via web

  - Web-Phone: Started web, completed phone

  - Web-F2F: Started web, completed face-to-face

  - Phone-F2F: Started phone, completed F2F

  - F2F only: Direct face-to-face contact

- **initial_mode** [String]: First attempted mode

- **final_mode** [String]: Mode of completion

- **n_mode_switches** [Integer]: Number of mode changes (0-3)

WEB MODE ATTEMPTS

- **web_attempt_date** [Date]: First web invitation date

- **web_response** [String]: Web mode outcome
  - Complete: Fully completed online
  - Partial: Started but not finished
  - No response: No web activity

- **device_type** [String]: Device used for web response
  - Desktop / Tablet / Mobile / NA

TELEPHONE MODE ATTEMPTS

- **phone_attempt_date** [Date]: First phone call date

- **phone_response** [String]: Phone mode outcome
  - Complete: Fully completed by phone
  - Partial: Started but not finished
  - No response: No successful contact

FACE-TO-FACE ATTEMPTS

- **f2f_attempt_date** [Date]: First F2F visit date

- **f2f_response** [String]: F2F mode outcome
  - Complete: Fully completed in person
  - Partial: Incomplete interview
  - Refused: Refused at door

RESPONSE METRICS

- **final_response_status** [String]: Overall survey outcome

- **response_propensity_score** [Numeric]: Modeled response probability

- **mode_preference_stated** [String]: Respondent's stated preference

- **completion_time_minutes** [Integer]: Total interview duration

- **interviewer_id** [String]: ID for phone/F2F modes (INT###)

DATA QUALITY INDICATORS

- **data_quality_score** [Numeric]: Composite quality metric (0-100)

- **item_nonresponse_rate** [Numeric]: Proportion missing items

- **straightlining_detected** [Binary]: Pattern response flag (0/1)

- **paradata_available** [Binary]: Availability of process data (0/1)

MODE EFFECTS

- **mode_effect_adjustment** [Numeric]: Calibration factor for mode

COST TRACKING

- **cost_total** [Numeric]: Total cost per response (currency units)

MODE ASSIGNMENT RULES

1. **Email Available**: Start with web invitation

2. **Phone Available**: Call after web non-response

3. **Address Available**: Visit after phone non-response

4. **Priority Cases**: Direct F2F for critical units

RESPONSE RATE DEFINITIONS

- **Unit Response Rate**: Complete interviews / Eligible units

- **Cooperation Rate**: Complete / (Complete + Partial + Refused)

- **Contact Rate**: Any response / Total attempts

- **Web Take-up Rate**: Web attempts / Web invitations

MODE EFFECT ASSESSMENT

Sources of Mode Effects

1. **Selection Effects**: Different populations by mode

2. **Measurement Effects**: Mode influences responses

3. **Coverage Effects**: Mode-specific exclusions

Adjustment Methods

- **Propensity Score Weighting**: Balance mode groups

- **Calibration**: Adjust to known totals

- **Statistical Modeling**: Explicit mode parameters

COST STRUCTURE

Mode	Fixed Cost	Variable Cost	Average Total
Web	$2	$0.50/reminder	$3.50
Phone	$5	$5/attempt	$12.00
F2F	$10	$20/visit	$35.00

DATA QUALITY BY MODE

Quality Metric	Web	Phone	F2F
Completion Rate	25%	35%	75%
Item Missing	8%	5%	2%
Straight-lining	12%	5%	3%
Interview Time	25min	35min	45min

PARADATA ELEMENTS

- **Web**: Clicks, time per page, browser info
- **Phone**: Call duration, attempts, outcomes
- **F2F**: Visit times, GPS coordinates, contact attempts

ADAPTIVE DESIGN FEATURES

1. **Targeting**: Priority cases for F2F
2. **Timing**: Optimal contact times by mode
3. **Incentives**: Mode-specific incentive levels
4. **Stopping Rules**: Cost-quality optimization

QUALITY CONTROL PROCEDURES

- **Web**: Server-side validation, completeness checks
- **Phone**: Recording verification (5% sample)
- **F2F**: Supervisor accompaniment (10% sample)

MODE COMPARISON ANALYSIS

- **Demographic Differences**: Age, education vary by mode
- **Response Patterns**: Social desirability effects
- **Data Quality**: Completeness and consistency metrics

- **Cost-Effectiveness**: Quality per unit cost

MISSING DATA PATTERNS

- **By Mode**: Web highest item missing, F2F lowest
- **By Topic**: Sensitive questions higher missing
- **By Demographics**: Elderly higher missing

WEIGHTING ADJUSTMENTS

1. **Base Weight**: Inverse selection probability
2. **Non-response Adjustment**: Response propensity models
3. **Mode Calibration**: Adjust for mode composition
4. **Post-stratification**: Align with population totals

FILE SPECIFICATIONS

- **Format**: CSV
- **Records**: 2,000 responses
- **Variables**: 24
- **File Size**: 500 KB
- **Encoding**: UTF-8

USAGE NOTES

1. Account for mode when analyzing responses
2. Use mode_effect_adjustment for comparisons
3. Consider cost-quality tradeoffs
4. Check paradata for response quality

LIMITATIONS

1. **Mode Selection Bias**: Not randomized
2. **Sequential Design**: Order effects possible
3. **Coverage**: Web excludes no-internet households
4. **Comparability**: Mode affects measurement

VERSION INFORMATION

- **Version**: 1.0

- **Creation Date**: 2024-08-01
- **Documentation**: Mixed_Mode_Protocol_v2.pdf

CONTACT

- **Survey Operations**: operations@sadc-stats.org
- **Technical Support**: mixed.mode@sadc-stats.org

CITATION

SADC Statistical Unit (2024). Mixed Mode Survey Response Dataset.

Sequential mixed-mode data collection system.

Southern African Development Community, Gaborone, Botswana.